

# Anti-virus and malware protection

What is a virus?

A hidden program that can do a number of things to your computer:

- Make your computer run slowly
- Prevent your computer from booting
- Damage parts of your computer
- Steal personal details or data
- Travel from your computer to other computers
- Send out unauthorized messages from your computer

Types of Viruses

- Worms – copy themselves from one computer on a network to other computers on the network
- Trojans – perform functions, often malicious, on your computer without your knowledge
- Spyware – malware used to spy on your activities
- There is a large amount of overlap within these basic categories

How do You Protect Yourself?

- You can disconnect your computer from the internet!
- You can unplug your computer!!
- Or you can use anti-virus software or apps.

Are you currently protected?

- Do you have an antivirus app on your computer
- Do you know if your antivirus app is currently turned on
- Do you know how to update your antivirus app
- Do you know whether your antivirus app is currently UTD

Why is updating so important?

- Software developer develops software
- Hacker finds vulnerabilities and designs exploit (virus or malware)
- Software developer updates software to plug vulnerabilities
- Hacker finds new vulnerabilities and designs new exploits
- Software developer updates software to plug new vulnerabilities
- Your only protection is to either avoid the exploit with developers updates or have antivirus app that blocks the exploit.

Vulnerabilities vs Exploits

- 2004 - 80% of critical vulnerabilities had an exploit available within 60 days
- 2009 - exploits available in as little as 10 days
- 2016 – exploits are now called zero-day exploits, exploits are already available when the vulnerability is made public

Anti-Virus protection is built into Windows

**Windows Defender** started as an anti-malware component of Microsoft Windows. It was first released as a free antispyware program download for Windows 2000 and Windows XP, then was shipped with Windows Vista and Windows 7 solely as an antispyware program. It was then replaced by Microsoft Security Essentials, Microsoft's antivirus program, in both Vista and Windows 7. Windows Defender was ultimately made into a full antivirus program, replacing Microsoft Security Essentials, and included as part of Windows 8 and later versions of Windows.

MS Anti-virus efficacy

Windows Defender does a good job defending your computer IF...

- Keep Windows Up To Date, both recommended AND optional updates
- Keep browser Up To Date
  - Edge and IE automatically update when windows updates
  - Firefox and Chrome automatically update when you start them and can also be updated manually

Engage in safe browsing

Never open eMails from unknown senders

Be cautious opening eMail attachments, even from known senders

Read EVERYTHING before you download

Never override antivirus or malware warnings unless you're VERY sure you know what you're doing.

User account control message "do you want to allow the following program to make changes to your computer?" Make sure you do before you click "Yes".

Do back-ups, better yet system images, often

Windows backup/image

Acronis

Macrium Free

EaseUs ToDo Free

Free AV Apps

If you prefer to use a different anti-virus app there are many available, including several free apps:

BitDefender

AVG Free

Panda Free

Avira Free

Avast Free

So...What do you do if you get infected???

You could bring your computer to your local "I can fix anything" shop! Sometimes that works out well, sometimes not.

You can start over and buy a new computer.

OR...Or you *could* run the computer maintenance programs recommended by the tech committee!

Our recommended programs include:

An activated, up-to-date, real-time anti-virus app

Disk Cleanup

CCleaner, updated to the most recent version

SuperAntiSpyware, updated to the most recent version

Malware Bytes, updated to the most recent version

Glary Defrag, updated to the most recent version

Disk Cleanup – comes pre-loaded with Windows

Ccleaner, SuperAntiSpyware, Malware Bytes and Glary are all free apps downloadable from their respective developers web sites or from a variety of other reputable download sites.

These apps should be loaded onto your computer PRIOR to any infection and run, AFTER UPDATING THEM TO THE MOST RECENT VERSION, on a regular basis.